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PHTF2 siRNA (m): sc-152238

BACKGROUND

PHTF2 (putative homeodomain transcription factor 2) is a 785 amino acid protein that contains one basic helix-loop-helix (bHLH) domain and belongs to the PHTF family. Homologous to PHTF1, PHTF2 exhibits strongest similarity within putative homeodomains and both N- and C-terminal regions. Existing as four alternatively spliced isoforms, PHTF2 localizes to nucleus and participates in DNA binding. PHTF2 may also play a role in transcriptional regulation. While PHTF1 is expressed mainly in testis, PHTF2 is predominantly expressed in muscle, which suggests that both may have acquired different functions after their duplication and divergence. The gene that encodes PHTF2 maps to human chromosome 7q11.23.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Phtf2 (mouse) mapping to 5 A3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

PHTF2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PHTF2 shRNA Plasmid (m): sc-152238-SH and PHTF2 shRNA (m) Lentiviral Particles: sc-152238-V as alternate gene silencing products.

For independent verification of PHTF2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152238A, sc-152238B and sc-152238C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PHTF2 siRNA (m) is recommended for the inhibition of PHTF2 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PHTF2 gene expression knockdown using RT-PCR Primer: PHTF2 (m)-PR: sc-152238-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.